

This listing of claims will replace all prior versions of the claims in the application:

Listing of Claims:

1. (Currently amended) A topical nerve diagnostic system with the use of a computer, comprising:
 - a first data recording part storing data of a whole nerve pathway diagram;
 - a first input part for receiving input data of neural findings;
 - a first data extraction part configured for extracting, from the data stored in said first data recording part, data for drawing associated nerve pathways related to abnormal neural findings ~~from the data stored in said first data recording part~~ according to neural finding data inputted through said first input part;
 - a display;
 - a whole nerve pathway indication part configured for displaying a whole nerve pathway diagram on said display based on the data stored in said first data recording part;
 - an associated nerve pathway indication part configured for drawing, based on the data extracted by said first data extraction part, associated nerve pathways in the whole nerve pathway diagram displayed on said display ~~based on the data extracted by said first data extraction part;~~ and
 - an associated lesion estimation and indication part configured for calculating, based on the associated nerve pathways drew drawn on said display by said associated nerve pathway indication part, a position of each of associated lesions and indicating the associated lesions in the whole nerve pathway diagram ~~based on the associated nerve pathways drew on said display by said associated nerve pathway indication part;~~
 - a second data recording part storing cut surface data of specified regions of the whole nerve pathway diagram;

a second input part for receiving input data of selection of which region of the whole nerve pathway diagram is to be indicated as a cut surface on said display;

a second data extraction part configured for extracting, from the data stored in said second data recording part, data for drawing associated nerve pathways related to abnormal neural findings in a cut surface of a specified region according to the data inputted through said second input part and the data inputted through said first input part;

a nerve pathway cut surface indication part configured for extracting, from the data stored in said second data recording part, associated cut surface data according to the data inputted through said second input part so as to display the associated cut surface;

a second associated nerve pathway indication part configured for drawing, based on the data extracted by said second data extraction part, associated nerve pathways in the nerve pathway cut surface displayed by said nerve pathway cut surface indication part;

a second associated lesion estimation and indication part configured for calculating, based on the associated nerve pathways displayed on said display by said second associated nerve pathway indication part, a position of each of associated lesions in the associated cut surface so as to display the associated lesions in the associated cut surface;

wherein the data stored in said first data recording part contains data of names of nerve nuclei and positions thereof in the whole nerve pathway diagram, data of connection relations of the nerve nuclei, and data of curves and straight lines representing nerve fascicles which connect the nerve nuclei with each other;

wherein said first data extraction part is configured to extract, for each of abnormal findings, from said first data recording part, data of names of associated nerve nuclei and positions thereof in the whole nerve pathway diagram, data of connection relations of the associated nerve nuclei, and data of curves and straight lines representing nerve fascicles which connect the associated nerve nuclei with each other; and

wherein said associated lesion estimation and indication part is configured to detect a region where associated nerve pathways displayed on said display intersect with each other and a region where associated nerve pathways approach each other at closest distance, and presumes

the detected regions to be associated lesions so as to display the associated lesions in said whole nerve pathway diagram on said display.

Claims 2-5. (Cancelled)

6. (Currently amended) The topical nerve diagnostic system according to claim [[5]] 1, wherein the data stored in said second data recording part contains, for all cut surfaces, data of names of nerve nuclei and positions thereof in the cut surface, data of connection relations of nerve nuclei, and data of curves and straight lines representing nerve fascicles which connect the associated nerve nuclei with each other ~~in the every cut surfaces~~.

7. (Currently amended) The topical nerve diagnostic system according to claim 6, wherein said second data extraction part ~~extracting~~ is configured to extract, for each of abnormal findings, from said second data recording part, data of names of associated nerve nuclei and positions thereof in the cut surface, data of connection relations of the associated nerve nuclei, and data of curves and straight lines representing nerve fascicles which connect the associated nerve nuclei with each other second data recording part ~~when a neural finding is an abnormal finding~~.

8. (Currently amended) The topical nerve diagnostic system according to claim [[5]] 1, wherein second associated lesion estimation and indication part ~~deteets~~ is configured to detect a region where associated nerve pathways displayed on said display intersect with each other and a region where associated nerve pathways approach each other at closest distance, and presumes the detected regions to be associated lesions so as to display the associated lesions in the cut surface.

9. (Currently amended) The topical nerve diagnostic system according to claim [[5]] 1, further comprising a screen page switchover part configured for switching over a screen page

between a screen page of the whole nerve pathway diagram and a screen page of a cut surface of a specified region of the whole nerve pathway diagram.

10. (Currently amended) The topical nerve diagnostic system according to any one of claims 1 to 9, wherein said neural findings include oculomotor restriction, inferior oculomotor restriction, jaw reflex acceleration, impaired facial tactual sensation, impaired facial pain/temperature sensation, corneal areflexia, lack of exterior oculomotor restriction [[no]], upper facial paralysis, lower facial paralysis, impaired taste, lowered pharyngeal reflex/swallowing difficulty, impaired pharyngeal sound dysphemia, lingual muscle paralysis/impaired lingual sound dysphemia, sternocleidomastoid paralysis, impaired upper limb pain/temperature sensation, impaired upper limb deep sensation, upper limb motor paralysis, superior limb tendon reflex, impaired trunk pain/temperature sensation, impaired trunk deep sensation, level of impaired trunk deep sensation, impaired lower limb pain/temperature sensation, inferior bathyesthesia disorder, lower limb motor paralysis, inferior limb tendon reflex, and Babinski reflex.

11. (Previously presented) The topical nerve diagnostic system according to claim 1, wherein the data stored in said first data recording part contains data of names of spinal roots, muscles and skin areas and positions thereof in the whole nerve pathway diagram, data of connection relations of the spinal roots and the muscles, and data of curves and straight lines representing nerve fascicles which connect the spinal roots with the muscles as well as data of connection relations of the spinal roots and the skin areas, and curves and straight lines which connect the spinal roots with the skin areas.

12. (Currently amended) The topical nerve diagnostic system according to claim 11, wherein said first data extraction part extracts is configured to extract, for each of abnormal findings, from said first data recording part data of names of associated spinal roots, associated muscle and associated skin areas and positions thereof in the whole nerve pathway diagram, data

of connection relations of the associated spinal roots and the associated muscles, and data of curves and straight lines representing nerve fascicles which connect the associated spinal roots with the associated skin areas as well as data of connection relations of the associated spinal roots and the associated skin areas, and data of curves and straight lines which connect the associated spinal roots with the associated skin areas ~~when a neural finding is an abnormal neural finding.~~

13. (Currently amended) The topical nerve diagnostic system according to claim 12, wherein said associated lesion estimation and indication part ~~detects~~ is configured to detect a region where associated nerve pathways displayed on said display overlap with each other at ~~the~~ a highest degree, and presume the detected region to be an associated lesion so as to display the associated lesion in the whole nerve pathway diagram on said display.

14. (Currently amended) The topical nerve diagnostic system according to claim 13, further comprising a third associated lesion estimation and indication part configured for removing an associated nerve pathway part from the associated nerve pathways drawn by said associated lesion estimation and indication part in the whole nerve pathway diagram on the display when said first input part receives input data of neural finding of the muscles or the skin areas which are related to the associated nerve pathways, said associated nerve pathway part corresponding to nerve fascicles which connect a muscle or a skin area ~~which is related~~ relating to data of normal findings with the associated spinal roots ~~from the associated nerve pathways drew in the whole nerve pathway diagram on the display by said associated lesion estimation and indication part in the case when data of abnormal neural finding of the muscles or the skin areas which are related to the associated nerve pathways is inputted through said first input part.~~

15. (Previously presented) The topical nerve diagnostic system according to claim 14, wherein the neural findings include findings with respect to muscle strength related to movement of joints and perception disorder of skin areas.

16. (Withdrawn) A neuroanatomy learning system with the use of a computer, characterized by that said neuroanatomy learning system comprises:

a nerve pathway cut surface data recording unit for recording cut surface data in at least one region of cerebrum and mesencephalon, at least one region of pons, at least one region of medulla oblongata, and at least one region of spinal cord, respectively, in a whole pathway diagram;

a display unit;

a nerve pathway cut surface indication unit for displaying cut surfaces of at least one region of the cerebrum and the mesencephalon, at least one region of the pons, at least one region of the medulla oblongata, at least one region of the medulla oblongata, and at least one region of the spinal cord, respectively, in this order based on the data stored in said nerve pathway cut surface data recording unit;

a nerve pathway selection data input unit for receiving selection data input of nerve pathways to be displayed on said display unit;

a nerve pathway data extraction unit for extracting data for drawing relevant nerve pathways from the data stored in said nerve pathway cut surface data recording unit based on the data received by the nerve pathway selection data input unit in every nerve pathway cut surfaces;

a nerve pathway indication unit for displaying relevant nerve pathways in a nerve pathway cut surface displayed by said nerve pathway cut surface indication unit based on the data extracted by said nerve pathway data extraction unit;

a nerve pathway cut surface selection data input unit for receiving selection data input for a nerve pathway cut surface which is intended to individually display among the nerve pathway cut surfaces displayed on said display unit by means of said nerve pathway cut surface indication unit;

an individual nerve pathway cut surface data extraction unit for extracting data for drawing a relevant nerve pathway cut surface from the data stored in said nerve pathway cut

surface data recording unit based on the data received by said nerve pathway cut surface selection data input unit;

an individual nerve pathway cut surface indication unit for displaying a relevant nerve pathway cut surface on said display unit based on the data extracted by said individual nerve pathway cut surface data extraction unit; and

a nerve pathway-nerve nucleus name indication unit for displaying a name of a nerve pathway or a nerve nucleus which is selected in the nerve pathway cut surface displayed on said display unit by means of said individual nerve pathway cut surface indication unit.

17. (Withdrawn) The neuroanatomy learning system according to claim 16, characterized by that the data stored in said nerve pathway cut surface data recording unit contains data of relevant names and positions of nerve nuclei in said cut surfaces, relevant connection relations in the nerve nuclei, and curves or straight lines representing nerve fascicles for connecting relevant nerve nuclei with each other, and names of relevant nerve pathway and positions in said cut surfaces in every cut surfaces.

18. (Withdrawn) The neuroanatomy learning system according to claim 16 or 17, characterized by that at least one region of said mesencephalon consists of the upper part of the mesencephalon and the lower part of the mesencephalon, at least one region of said pons consists of the upper, the middle, and the lower parts of the pons, at least one region of the medulla oblongata consists of the upper part, the upper-middle part, the middle, the middle-lower part, and the lower part of the medulla oblongata, and at least one region of said spinal cord consists of a cervical segment, a thoracic segment, and a lumbar segment.